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Date: August 29, 2006/Christina M. Padamonsky/
Christina M. Padamonsky**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Applicant(s): Susan T. Dumais, *et al.*

Examiner: Srirama Channavajjala

Serial No: 10/607,228

Art Unit: 2166

Filing Date: June 26, 2003

Title: SYSTEMS AND METHODS FOR PERSONAL UBIQUITOUS INFORMATION
RETRIEVAL AND REUSE**Mail Stop Appeal Brief-Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Appellants submit this brief in connection with an appeal of the above-identified patent application. A payment *via* credit card is filed concurrently herewith in connection with all fees due regarding this document and the appeal brief. In the event any additional fees may be due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [MSFTP392US].

I. Real Party in Interest (37 C.F.R. §41.37(c)(1)(i))

The real party in interest in the present appeal is Microsoft Corporation, the assignee of the present application.

II. Related Appeals and Interferences (37 C.F.R. §41.37(c)(1)(ii))

Appellants, appellants' legal representative, and/or the assignee of the present application are not aware of any appeals or interferences which may be related to, will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims (37 C.F.R. §41.37(c)(1)(iii))

Claims 3 and 29 have been canceled. Claims 1, 2, 4-28 and 30-57 stand rejected by the Examiner. The rejection of claims 1, 2, 4-28 and 30-57 is being appealed.

IV. Status of Amendments (37 C.F.R. §41.37(c)(1)(iv))

The Examiner has entered the amendments submitted after the Final Office Action. (*See* Communication from Examiner dated June 8, 2006).

V. Summary of Claimed Subject Matter (37 C.F.R. §41.37(c)(1)(v))**Independent Claim 1**

Independent claim 1 recites a system that facilitates concurrent searching across a plurality of sources, comprising: a usage analyzer that determines user accessed items and a content analyzer that stores subsets of data corresponding to the items and sparse representations of the subsets. Further, at least two of the user accessed items are associated with disparate sources, wherein, the disparate sources comprise local or remote data locations including files, folders, applications, images, audio files, appointments, email, and web information. Furthermore, the system also comprises an indexing component that indexes the data subsets. (*See e.g.*, page 6, line 12-page 7, line 6 (Fig. 1, reference nos. 100, 110, 114, 120, 130 and 140)).

Independent Claim 28

Independent claim 28 recites a method that facilitates concurrent searching across a plurality of sources, the method comprises: automatically monitoring a user and automatically

analyzing a data source to determine whether the user has contemplated the data source. Further, the method comprises automatically determining whether the user has contemplated the data source selected from at least two disparate data sources. Then, the method proceeds to include automatically storing subsets of the data corresponding to the data source and sparse representations of the subsets. The sparse representations can include creating a thumbnail representation of the web page or associating a hyperlink reference to the page and thumbnail as part of a metadata file. Finally, the method comprises automatically indexing the contemplated data source in a computerized index. (*See e.g.*, page 6, line 12-page 7, line 6 (Fig. 1, reference nos. 100, 110, 114, 120, 130 and 140) and page 8, line 30-page 9, line 26).

Independent Claim 35

Independent claim 35 recites a system that facilitates computerized searching, comprising: means for determining when a user has accessed an information item. (*See e.g.*, page 6, lines 12-23 (Fig. 1, reference nos. 110, 114 and 120) and page 8, line 30-page 9, line 26). Independent claim 35 also recites a means for filtering the information item. (*See e.g.*, page 6, lines 12-23 (Fig. 1, reference nos. 110, 114 and 120)). Independent claim 35 further recites a means for storing subsets of data corresponding to the information item and sparse representations of the subsets, wherein at least two of the items are associated with disparate sources, such as local and remote data sources. (*See e.g.*, page 6, line 24-page 7, line 6 (Fig. 1, reference no. 120)). Independent claim 35 further recites a means for indexing the subsets of data and sparse representations of the subsets in a content index. (*See e.g.*, page 6, line 24-page 7, line 10 (Fig. 1, reference nos. 130 and 140)). Finally, independent claim 35 recites a means for querying the content index. (*See e.g.*, page 7, lines 11-20 (Fig. 1, reference nos. 150 and 154)).

The means for limitations described above are identified as limitations subject to the provisions of 35 U.S.C. §112 ¶6. The structures corresponding to these limitations are identified with reference to the specification and drawings in the above-noted parentheticals.

Independent Claim 36

Independent claim 36 recites a user interface for computerized searching of data, comprising: a display having one or more display objects representing results gathered from monitoring information items previously observed by a user; and at least one input option associated with the display to facilitate user queries of the information items. (*See e.g.*, page 10, line 29-page 13, line 3 (Fig. 3, reference nos. 300, 310 and 314)).

VI. Grounds of Rejection to be Reviewed on Appeal (37 C.F.R. §41.37(c)(1)(vi))

A. Whether claims 1, 2 and 4-27 are unpatentable under 35 U.S.C. §103(a) over Rhodes (US App. No. 2003/0028631) in view of Hansen *et al.* (US App. No. 2003/0014399).

B. Whether claims 28, 30-34 are unpatentable under 35 U.S.C. §103(a) over Egendorf *et al.* (US App. No. 2003/0177111) in view of Singer *et al.* (US Pat. No. 6,789,115).

C. Whether claim 35 is rejected under 35 U.S.C. §102(a) as being anticipated by Grefenstette *et al.* (US Pat. No. 6,446,035).

D. Whether claims 36-57 are rejected under 35 U.S.C. §102(a) as being anticipated by Raboczi *et al.* (US App. No. 2003/0061209).

VII. Argument (37 C.F.R. §41.37(c)(1)(vii))**A. Rejection of Claims 1, 2 and 4-27 Under 35 U.S.C. §103(a)**

Claims 1, 2 and 4-27 stand rejected as obvious under 35 U.S.C. §103(a) over Rhodes (US App. No. 2003/0028631) in view of Hansen *et al.* (US App. No. 2003/0014399). Reversal of this rejection is requested for at least the following reasons. Rhodes and Hansen *et al.*, individually or in combination, do not teach or suggest each and every element as set forth in the subject claims.

To reject claims in an application under §103, an examiner must show an un rebutted *prima facie* case of obviousness. A *prima facie* case of

obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicants' disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Appellants' claimed invention relates to systems and methods that facilitate information searches that automatically cut across different information sources while supporting fast information retrieval, filtering and sorting due to the indexing process. Rich contextual cues such as date, author, thumbnails and previews are provided with retrieved items to aid the user in quickly recognizing items. More particularly, independent claim 1 recites a system that facilitates concurrent searching across a plurality of sources, comprising: *a usage analyzer that determines user accessed items and a content analyzer that stores subsets of data corresponding to the items and sparse representations of the subsets, at least two of the items being associated with disparate sources, respectively, the disparate sources comprise local or remote data locations including files, folders, applications, images, audio files, appointments, email, and web information; and an indexing component that indexes the data subsets*. Rhodes and Hansen *et al.*, individually or in combination, fail to teach or suggest such aspects of the claimed invention.

More particularly, Rhodes and Hansen *et al.* do not disclose or suggest a content analyzer that *stores subsets of data corresponding to the items and sparse representations of the subsets, wherein at least two of the items are associated with disparate sources. Further, the disparate sources comprise local or remote data locations including files, folders, applications, images, audio files, appointments, email, and web information*, as recited in independent claim 1. The Final Office Action contends the following:

Rhodes teaches a system which includes 'a usage analyzer that determines user accessed items and a content analyzer that stores subsets of data corresponding to the items, at least two of the items being associated with disparate sources' [page 3, col. 2, 0037, page 4, col. 1, 0045, fig. 1], user accessed items and content analyzer

corresponds to Rhodes's fig. 1, user ID as detailed in fig. 4-5; an indexing component that indexes the data subsets' [page 5, col. 2, 0058, fig. 9], indexes the data subsets corresponds to Rhodes's fig. 9, element 202 index array.

(See Final Office Action (dated April 7, 2006), page 3). More specifically, the Final Office Action contends that although Rhodes does not specifically teach 'sparse representations of the subsets', Rhodes does teach a network usage analysis system that includes a query as detailed in fig. 1. (See Final Office Action (dated April 7, 2006), page 3). Appellants respectfully disagree.

Rhodes discloses a network usage analysis system and method for providing updatable statistical representation of usage record events. A statistical model is generated from the set of record events and updated by adding the most recent record event to the statistical model. (See pg. 2, paragraphs [0017-0018]). The network usage analysis system of Rhodes provides direct statistical representation of network usage information. Rhodes defines network usage information as metadata information about the communication sessions and does not include the actual information exchanged in a communication session. (See pg. 1, paragraph [0004]). A statistical model is generated from the set of record events and updated by adding the most recent record event to the statistical model. A tracking table is utilized to track each customer's usage. Upon receipt of a new record event, only the portion of the accumulation table and statistical model associated with the new record event are updated. (See pg. 3, paragraph [0037] and pg. 4, paragraph [0045]).

In contrast, appellants' claimed invention discloses a content analyzer that creates sparse representations of accessed data in the content index. For example, if the user has accessed a web page, the content analyzer may create a thumbnail representation of the web page and associate a hyperlink reference to the page and thumbnail. Further, the system includes one or more disparate information sources that are accessed or considered by a user, having dissimilar information content, whereby some of the information sources may represent local data locations such as files, folders, applications, images, audio files, appointments, email, and so forth, and other sources may represent remote sources such as web information, for example. (See pg. 6, lines 13-20). Rhodes is directed to an updatable statistical representation of metadata collected from a real-time stream of network usage data records generated by user activity on the Internet. This metadata is stored in a statistical model and continuously updated. Accordingly, the

network usage system of Rhodes does not store sparse representation of the data, nor does it store data associated with disparate sources. Thus, Rhodes is silent with regard to ***a content analyzer that stores subsets of data corresponding to the items and sparse representations of the subsets, at least two of the items being associated with disparate sources.*** Further, it is submitted that Rhodes fails to teach or suggest the exemplary aspects for which the Examiner cites the document. Moreover, Hansen *et al.* fails to make up for the aforementioned deficiencies of Rhodes.

The Examiner in the Final Office Action (dated April 7, 2006) acknowledges that Rhodes fails to disclose a ‘sparse representation of the subset’ and asserts that Hansen *et al.* provides this exemplary aspect of appellants’ claimed invention. In particular, the Examiner contends that the secondary document, at page 5, column 1, paragraph 0049, lines 1-4, paragraph 0050, lines 8-9, column 2, line 1, provides: ***sparse representation of the subset and teaches search result including search session.*** Appellants’ representative respectfully disagrees.

Hansen *et al.* relates to a method for organizing records of database search activity by topical relevance. The method comprises monitoring user search activity in a user population, extracting search sessions, determining groups of semantically related queries or paths based on search session data, determining probabilities that records in the database are relevant for each query, and maintaining a table associating an index for each record in the database with the probability that the record is relevant for each query. (See pg. 3, paragraph [0026]).

In contrast, appellants’ claimed invention discloses a content analyzer that creates sparse representations of accessed data in the content index. As stated *supra*, if the user has accessed a web page, the content analyzer may create a thumbnail representation of the web page and associate a hyperlink reference to the page and thumbnail. Hansen *et al.* merely discloses gathering URLs of HTML pages. Hansen *et al.* also discloses that for the purpose of enhancing Web search for HTML pages, it excludes embedded URLs (such as image files) from HTML pages. (See pg. 5, paragraph [0049]). Accordingly, Hansen *et al.* is silent with regard to ***a content analyzer that stores subsets of data corresponding to the items and sparse representations of the subsets...***

Furthermore, appellants’ system includes one or more disparate information sources that are accessed or considered by a user, having dissimilar information content, whereby some of the information sources may represent local data locations such as files, folders, applications,

images, audio files, appointments, email, and so forth, and other sources may represent remote sources such as web information, for example. (See pg. 6, lines 13-20). The lines cited by the Examiner in Hansen *et al.* are part of the background and describe the available methods currently used to improve search results, such as ranking algorithms, meta-search engines, dedicated search engines, specialized directories and bookmarks. (See pg. 3, paragraphs [0020]-[0021]). Furthermore, the system of Hansen *et al.* is directed to improving Web searching by specializing a database based on a collection of pages available on one or more Web sites, and taking the standard search facility to be an existing search engine. (See pg. 4, paragraph [0043]). Thus, Hansen *et al.* focuses on user queries submitted to a search engine, typically assisting users in searching for HTML documents on the World Wide Web. (See pg. 4, paragraphs [0044]-[0045] and pg. 5, paragraph [0049]). Accordingly, Hansen *et al.* is silent with regard to storing disparate sources, ***wherein the disparate sources further comprise local or remote data locations including files, folders, applications, images, audio files, appointments, email, and web information...***

Thus, it is submitted that Hansen *et al.* does not teach or suggest the elements upon which the Examiner relies, and as a consequence neither Rhodes nor Hansen *et al.* teach or suggest the invention as claimed. Accordingly, it is respectfully requested that this rejection be withdrawn with respect to independent claim 1 (and claims 2 and 4-27 which respectively depend there from).

B. Rejection of Claims 28, 30-34 Under 35 U.S.C. §103(a)

Claims 28, 30-34 stand rejected as obvious under 35 U.S.C. §103(a) over Egendorf *et al.* (US App. No. 2003/0177111) in view of Singer *et al.* (US Pat. No. 6,789,115). Reversal of this rejection is requested for at least the following reasons. Egendorf *et al.* and Singer *et al.*, individually or in combination, do not teach or suggest each and every element as set forth in the subject claims.

As stated *supra*, appellants' claimed invention relates to systems and methods that facilitate concurrent searching across a plurality of sources while supporting fast information retrieval, filtering and sorting due to the indexing process. More particularly, independent claim 28 recites a method that facilitates concurrent searching across a plurality of sources, comprising: ***automatically monitoring a user and automatically analyzing a data source to determine***

whether the user has contemplated the data source; automatically determining whether the user has contemplated the data source selected from at least two disparate data sources; automatically storing subsets of data corresponding to the data source and sparse representations of the subsets; and automatically indexing the contemplated data source in a computerized index. Egendorf *et al.* and Singer *et al.*, individually or in combination, does not expressly or inherently disclose the aforementioned novel aspects of appellants' invention as recited in the subject claims.

More particularly, Egendorf *et al.* and Singer *et al.* do not disclose or suggest *automatically monitoring a user and analyzing data sources to determine if a user has contemplated the data source;...and storing subsets of data corresponding to the data source and sparse representations of the subsets...*, as recited in independent claim 28. The Final Office Action contends the following:

Egendorf *et al.* teaches a system which includes 'concurrent searching across a plurality of sources' [fig. 1, Abstract], 'automatically determining whether a user has contemplated a data source selected from at least two disparate data sources' [page 7, col. 2, 0092, lines 8-11, 0094, lines 9-16, page 11, col. 2, 0156, lines 12-14], data sources corresponds to Egendorf's information sources fig. 1, element 11A-11N; 'automatically indexing the contemplated data source in a computerized index' [page 12, col. 2, 0175, fig. 10].

(See Final Office Action (dated April 7, 2006), page 9). More specifically, the Final Office Action contends that although Egendorf *et al.* does not specifically teach 'automatically monitoring the user and automatically analyzing the data source to determine whether the user has contemplated the data source', Egendorf *et al.* discloses user searching multiple data sources as detailed in fig. 1, Abstract. (See Final Office Action (dated April 7, 2006), page 3). Appellants respectfully disagree.

Egendorf *et al.* discloses a method for searching from a plurality of data sources. A customized query is sent to each database, wherein the query is automatically generated without the need for human programming. The query is generated based on information on how to query gained directly from each information source. This query information is contained in a descriptive packet associated with the information source, and is further contained in a database.

A user search request then prompts retrieval of all relevant information sources which matches the search parameters. (See pg. 5, paragraphs [0055]-[0060]).

In contrast, appellants' claimed invention discloses concurrent searching across a plurality of sources, wherein user activities are monitored and events relating to when information has been accessed or seen by the user are recorded (*e.g.*, monitor desktop mouse and keyboard activities and record index event when user selects or contemplates an information item) for determining when an information item has been accessed or previously contemplated before automated indexing of the item occurs. In one aspect, files can be examined for such information as date opened or created, last accessed, and/or other indicia indicating if the information item has already been observed. Egendorf *et al.* is directed to searching *via* a customized query. Accordingly, the method of Egendorf *et al.* does not monitor or record events relating to what information has been accessed or seen by the user. Thus, Egendorf *et al.* is silent with regard to ***automatically monitoring a user and automatically analyzing a data source to determine whether the user has contemplated the data source.*** (See Final Office Action dated April 7, 2006, page 9).

Furthermore, appellants' claimed invention discloses the automatic storing of subsets of data and sparse representations of the subsets. Sparse representations of the subsets of accessed data are stored in a computerized index. For example, if the user has accessed a web page, the content analyzer may create a thumbnail representation of the web page and associate a hyperlink reference to the page and thumbnail. The lines cited by the Examiner in Egendorf *et al.* disclose that URL addresses for matching text are retrieved, then a second search of the actual text associated with the URL addresses is performed to ensure that a user does not receive as search responses, URL addresses of Web pages which do not currently meet the search criteria or are URL addresses of pages that no longer exist. (See pg. 12, paragraphs [0176]-[0177]). Further, Egendorf *et al.* teaches that a query is generated based on information on how to query gained directly from each information source. This query information is contained in a descriptive packet associated with the information source, and is further contained in a database. A user search request then prompts retrieval of all relevant information sources which matches the search parameters. (See pg. 5, paragraphs [0055]-[0060]). Thus, Egendorf *et al.* merely discloses the use of descriptive packets associated with the information sources. The descriptive packets contain query information specific to each information source. Accordingly, Egendorf *et*

al. is silent with regard to ***automatically storing subsets of data corresponding to the data source and sparse representations of the subsets...*** Thus, it is submitted that Egendorf *et al.* fails to teach or suggest the exemplary aspects for which the Examiner cites the document. Moreover, Singer *et al.* fails to makeup for the aforementioned deficiencies of Egendorf *et al.*

The Examiner in the Final Office Action (dated April 7, 2006) acknowledges that Egendorf *et al.* fails to disclose ‘automatically monitoring the user and automatically analyzing the data source to determine whether the user has contemplated the data source’ and asserts that Singer *et al.* provides this exemplary aspect of appellants’ claimed invention. In particular, the Examiner contends that the secondary document, at the Abstract, figs. 1-2, column 4, lines 30-67, provides: ***automatically monitoring the user and automatically analyzing the data source to determine whether the user has contemplated the data source.*** Appellants’ representative respectfully disagrees.

Singer *et al.* relates to a system for capturing, analyzing, storing and reporting system-users’ usage of multiple internet and/or intranet web servers. At each web server in the system, the actions by the system-user create a server log that is processed by the system on a continuous basis. On a periodic basis, one or more collection servers in the system copy the processed log files from each web server on the system, zip the files and transfer the files to an analysis server. After the collection is complete, an analysis server processes the data and stores it in a relational database that supports various user-specified daily, monthly and quarterly reports of the usage data. (See Abstract).

Singer *et al.* does not disclose a system wherein the data is stored as subsets and sparse representations of the subsets. Appellants’ claimed invention discloses the automatic storing of subsets of data and sparse representations of the subsets. Sparse representations of the subsets of accessed data are stored in a computerized index. For example, if the user has accessed a web page, the content analyzer may create a thumbnail representation of the web page and associate a hyperlink reference to the page and thumbnail. Singer *et al.* merely discloses the collecting, analyzing and reporting of high volume multi-web server usage. Accordingly, Singer *et al.* is silent with regard to ***automatically storing subsets of data corresponding to the data source and sparse representations of the subsets...***

Thus, it is submitted that Singer *et al.* does not teach or suggest the elements upon which the Examiner relies, and as a consequence neither Egendorf *et al.* nor Singer *et al.* teach or

suggest the invention as claimed. Accordingly, it is respectfully requested that this rejection be withdrawn with respect to independent claim 28 (and claims 30-34 which respectively depend there from).

C. Rejection of Claim 35 Under 35 U.S.C. §102(a)

Claim 35 stands rejected under 35 U.S.C. §102(a) as being anticipated by Grefenstette *et al.* (US Pat. No. 6,446,035). Reversal of this rejection is requested for at least the following reasons. Grefenstette *et al.* does not anticipate each and every element as set forth in the subject claim.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes each and every limitation set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the ... claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Appellants' claimed invention relates to systems and methods that facilitate concurrent searching across a plurality of sources while supporting fast information retrieval, filtering and sorting due to the indexing process. More particularly, independent claim 35 recites a system that facilitates computerized searching, comprising: *means for determining when a user has accessed an information item; means for filtering the information item; means for storing subsets of data corresponding to the information item and sparse representations of the subsets, at least two of the items being associated with disparate sources such as local and remote data sources; means for indexing the subsets of data and sparse representations of the subsets in a content index; and mean for querying the content index.* Grefenstette *et al.* does not expressly or inherently disclose the aforementioned novel aspects of appellants' invention as recited in the subject claim.

More particularly, Grefenstette *et al.* does not disclose or suggest a *means for storing subsets of data corresponding to the information item and sparse representations of the subsets, wherein at least two of the items are associated with disparate sources such as local*

and remote data sources, as recited in independent claim 35. The Final Office Action contends the following:

Grefenstette *et al.* teaches a system which includes ‘means for determining when a user has accessed an information item’ (col. 8, lines 7-13, col. 10, lines 13-17, fig. 5, element 306, fig. 6, element 306), Grefenstette specifically teaches user ID, URL for the accessed web page including time stamp that indicates when particular user accessed information; ‘means for filtering the information item’ (col. 13, lines 28-36), filtering the information item corresponding to user entering the query using selected fields and query in field as detailed in fig. 6; ‘means for storing subsets of data corresponding to the information item and sparse representations of the subsets’ (col. 11, lines 3-11, col. 12, lines 61-67), Grefenstette specifically teaches storing the database entries particularly tables and related data that include subsets of data and sparse representations of the subsets as detailed in fig. 4, element 274, 276 and 278; ‘means for indexing the subsets of data and sparse representation of the subsets in a content index’; (col. 10, lines 4-12, col. 12, lines 58-64, fig. 5, elements 330, 332 and 334), Grefenstette specifically teaches indexing web pages corresponding to indexing information item; and ‘means for querying the content index’ (col. 13, lines 37-39).

(See Final Office Action (dated April 7, 2006), pages 12-13). More specifically, the Final Office Action contends that the data memory of Grefenstette *et al.* that stores database entries and identity data with information about the identities of people who access resources is the same as the means for storing subsets of data corresponding to the information item and sparse representations of the subsets, of appellants’ claimed invention. (See Final Office Action (dated April 7, 2006), page 12). Appellants respectfully disagree.

Grefenstette *et al.* discloses a system for finding groups of people based on linguistically analyzable content of resources accessed. The system obtains expression/person data that identifies at least one person who has accessed a resource that includes an expression type. An expression type is identified by performing linguistic analysis on the text of a Web page or other accessed resource. The expression type data can then be associated with an identifier of the person who accessed the Web page, such as a logon name. The expression data is then stored in a database and the group information can be obtained in response to a query from a user. (See col. 2, line 46-col. 3, line 13).

In contrast, appellants' invention discloses a means for storing subsets of data corresponding to the information item and sparse representations of the subsets. For example, if the user has accessed a web page, the content analyzer may create a thumbnail representation of the web page and associate a hyperlink reference to the page and thumbnail. Further, the system includes one or more disparate information sources that are accessed or considered by a user, having dissimilar information content, whereby some of the information sources may represent local data locations such as files, folders, applications, images, audio files, appointments, email, and so forth, and other sources may represent remote sources such as web information, for example. (See pg. 6, lines 13-20). Grefenstette *et al.* is directed to a system that performs linguistic analysis on data associated with an accessed resource and saves this data in a database. The data memory stores database entries and identity data with information about the identities of people who access resources. (See col. 11, lines 3-11). Accordingly, Grefenstette *et al.* does not store subsets or sparse representations of the data. Thus, Grefenstette *et al.* is silent with regard to ***a means for storing subsets of data corresponding to the information item and sparse representations of the subsets, at least two of the items being associated with disparate sources such as local and remote data sources...***

In addition, the Examiner is reminded that the standard by which anticipation is to be measured is ***strict identity*** between the cited document and the invention as claimed, not mere equivalence or similarity. See, *Richardson* at 9 USPQ2d 1913, 1920. This means that in order to establish anticipation under 35 U.S.C. §102, the single document cited must not only expressly or inherently describe each and every limitation set forth in the patent claim, but also the identical invention must be shown in as complete detail as is contained in the claim. The fact that Grefenstette *et al.* fails to store subsets or sparse representations of the data, let alone ***sparse representations of subsets of data, wherein at least two of the items are associated with disparate sources such as local and remote data sources***, leads appellants to the inexorable belief and conclusion that Grefenstette *et al.* does not provide an invention identical to that recited in the subject claims.

In view of at least the foregoing, it is readily apparent that Grefenstette *et al.* does not anticipate or suggest the subject invention as recited in independent claim 35. Accordingly, this rejection should be reversed.

D. Rejection of Claims 36-57 Under 35 U.S.C. §102(a)

Claims 36-57 stand rejected under 35 U.S.C. §102(a) as being anticipated by Raboczi *et al.* (US App. No. 2003/0061209). Reversal of this rejection is requested for at least the following reasons. Raboczi *et al.* does not anticipate each and every element as set forth in the subject claims.

As stated *supra*, the claimed invention relates to systems and methods that facilitate concurrent searching across a plurality of sources while supporting fast information retrieval, filtering and sorting due to the indexing process. More particularly, independent claim 36 recites a user interface for computerized searching of data, comprising: ***a display having one or more display objects representing results gathered from monitoring information items previously observed by a user; and at least one input option associated with the display to facilitate user queries of the information items.*** Raboczi *et al.* does not expressly or inherently disclose the aforementioned novel aspects of appellants' invention as recited in the subject claim.

More particularly, Raboczi *et al.* does not disclose or suggest ***a display having one or more display objects representing results gathered from monitoring information items previously observed by a user,*** as recited in independent claim 36. The Final Office Action contends the following:

Raboczi *et al.* teaches a system which includes 'a user interface for computerized searching of data' (page 1, col. 1, 0002), Raboczi is directed to a user interface for navigation of information or searching information as detailed in page 1, 0002; 'a display having one or more display objects representing results gathered from monitoring information items previously observed by a user' (page 2, 0024, page 3, col. 2, 0046, page 4, col. 1, 0058, lines 14-18, page 4, col. 2, 0067, page 5, col. 1, 0069, figs. 2-3); Raboczi specifically teaches user searching information related to document metadata and list of links to related documents are displayed as detailed in figs. 2-3, further, Raboczi also teaches automatically capturing, displaying activity information items where user can select or deselect information as detailed in page 5, col. 1, 0069; 'at least one input option associated with the display to facilitate user queries of the information items' (fig. 5, page 5, col. 2, 0084), Raboczi teaches search may be narrowed or refined by specifying for example data range selection group element 88, further this group includes two text boxes element 90 and 92 or text box 94 may be used to enter dates that corresponds to at least one input option associated with the display to facilitate user queries.

(See Final Office Action (dated April 7, 2006), pages 13-14). More specifically, the Final Office Action contends that the user interface of Raboczi *et al.* that comprises a section to input a search query, a section to display a list of search results, a section to display the contents of a selected item, a section to display metadata about the selected item and a section to display related resources, is the same as appellants' claimed display having one or more display objects representing results gathered from monitoring information items previously observed by a user. (See Final Office Action (dated April 7, 2006), page 13). Appellants respectfully disagree.

Raboczi *et al.* discloses a computer user interface tool for navigation of data stored in directed graphs. A user can search a database of documents or metadata by formulating a query and submitting the query *via* the user interface. A query engine processes the query and returns a list of nodes in the directed graph that satisfy the query. Using the user interface, the user is able to narrow the list of hits by selectively choosing from the list of metadata. (See pg. 1, paragraph [0016]-pg. 2, paragraph [0019]).

In contrast, appellants' claimed invention discloses a user interface that facilitates computerized searching, wherein user activities are monitored and events relating to when information has been accessed or seen by the user are recorded (*e.g.*, monitor desktop mouse and keyboard activities and record index event when user selects or contemplates an information item) for determining when an information item has been accessed or previously contemplated. In one aspect, files can be examined for such information as date opened or created, last accessed, and/or other indicia indicating if the information item has already been observed. Raboczi *et al.* is directed to utilizing a user interface for searching an existing database of documents. A user enters search criteria and those emails in the data store that satisfy the criteria are displayed in the user interface. (See pg. 5, paragraph [0069]). Raboczi *et al.* does not disclose monitoring user activities and displaying the results obtained. Accordingly, Raboczi *et al.* does not monitor or record events relating to when information has been accessed or seen by the user. Thus, Raboczi *et al.* is silent with regard to a user interface comprising ***a display having one or more display objects representing results gathered from monitoring information items previously observed by a user.***

As stated *supra*, the Examiner is reminded that the standard by which anticipation is to be measured is ***strict identity*** between the cited document and the invention as claimed, not mere

equivalence or similarity. The fact that Raboczi *et al.* fails to monitor or record events relating to when information has been accessed or seen by the user, let alone provide *a display having one or more display objects representing results gathered from monitoring information items previously observed by a user*, leads appellants to the inexorable belief and conclusion that Raboczi *et al.* does not provide an invention identical to that recited in the subject claims.

In view of at least the foregoing, it is readily apparent that Raboczi *et al.* does not anticipate or suggest the subject invention as recited in independent claim 36 (and claims 37-57 which depend there from). Accordingly, this rejection should be reversed.

E. Conclusion

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 1, 2, 4-28 and 30-57 be reversed.

If any additional fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP392US].

Respectfully submitted,

AMIN, TUROCY & CALVIN, LLP

/Marisa Joy Zink/

Marisa Joy Zink

Reg. No. 48,064

AMIN, TUROCY & CALVIN, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731

VIII. Claims Appendix (37 C.F.R. §41.37(c)(1)(viii))

1. A system that facilitates concurrent searching across a plurality of sources, comprising:
a usage analyzer that determines user accessed items and a content analyzer that stores subsets of data corresponding to the items and sparse representations of the subsets, at least two of the items being associated with disparate sources, respectively, the disparate sources comprise local or remote data locations including files, folders, applications, images, audio files, appointments, email, and web information; and
an indexing component that indexes the data subsets.
2. The system of claim 1, further comprising a search component that in response to a search query, initiates a search across the indexed data, and outputs links to locations of a subset and/or sparse representation of the subset.
3. (Canceled)
4. The system of claim 1, further comprising a filter that extracts portions of the accessed items and creates sparse representations of accessed data in a content index.
5. The system of claim 1, the indexer associates metadata with the accessed items, the metadata employed to retrieve the accessed items.
6. The system of claim 5, the metadata includes at least one of a file path, a hyperlink, and a tag.
7. The system of claim 2, further comprising an implicit query that is derived from the search query.
8. The system of claim 1, further comprising a gatherer component that specifies an interface to different content sources in their native format.

9. The system of claim 4, the filter decodes individual file formats and emits a character stream for further processing.
10. The system of claim 9, further comprising a tokenizer component that breaks the character stream into words and provides linguistic processing.
11. The system of claim 10, the linguistic processing includes at least one of date normalization and stemming.
12. The system of claim 1, further comprising a retriever component supporting a query language for accessing stored information.
13. The system of claim 12, the retriever component provides Boolean functions and best match retrieval on full text and metadata properties that enable at least one of phrase, wildcard and proximity searches.
14. The system of claim 1, further comprising a protocol handler to extract individual messages from exchange mail stores, local mail files, and public folders.
15. The system of claim 14, further comprising a component index attachments to email, which generalizes to other container objects.
16. The system of claim 1, further comprising an event component that monitors user and makes determinations with respect to user actions.
17. The system of claim 16, the event component includes to determine user actions or goals.
18. The system of claim 17, the event component employs evidential patterns of user activity including at least one of: a Focus of attention, an Introspection, an Undesired piece of information, and a Domain-specific syntactic and semantic content.

19. The system of claim 1, further comprising a component to process implicit queries based upon potential interest to a user.
20. The system of claim 19, the implicit queries automatically invoke related information actions directed to a user, the information actions associated with a query at hand or a current context.
21. The system of claim 20, further comprising at least one of context-sensitive queries, application-context queries, and item-centric integrations.
22. The system of claim 1, further comprising a component that enables users to share selected electronic files with other users.
23. The system of claim 1, further comprising a component to remove accessed information items.
24. The system of claim 2, the search component employs effective time computations when presenting calendar items.
25. The system of claim 1, further comprising a component to perform background storage operations to processes volatile data.
26. The system of claim 1, at least one of the usage analyzer and the indexer is executed on at least one of a client machine and a server machine, the client and server machines including at least one computer respectively.
27. A computer readable medium having computer readable instructions stored thereon for implementing at least one of the usage analyzer and the indexer of claim 1.

28. A method that facilitates concurrent searching across a plurality of sources, comprising:
automatically monitoring a user and automatically analyzing a data source to determine whether the user has contemplated the data source;
automatically determining whether the user has contemplated the data source selected from at least two disparate data sources;
automatically storing subsets of data corresponding to the data source and sparse representations of the subsets; and
automatically indexing the contemplated data source in a computerized index.
29. (Canceled)
30. The method of claim 28, further comprising providing at least one of explicit query options and implicit query options to access the computerized index.
31. The method of claim 28, further comprising automatically updating a metadata file associated with the data source with at least one of explicit tag information and implicit tag information.
32. The method of claim 28, further comprising providing at least one of a file sharing option, a file scrubbing option, an effective time computation, and a background storage option.
33. The method of claim 28, further comprising automatically filtering the data source to create a sparse representation of the data source.
34. The method of claim 28, further comprising displaying at least one of a timeline visualization and a grid visualization to represent queries derived from the computerized index.

35. A system that facilitates computerized searching, comprising:
means for determining when a user has accessed an information item;
means for filtering the information item;
means for storing subsets of data corresponding to the information item and sparse representations of the subsets, at least two of the items being associated with disparate sources, such as local and remote data sources;
means for indexing the subsets of data and sparse representations of the subsets in a content index; and
means for querying the content index.
36. A user interface for computerized searching of data, comprising:
a display having one or more display objects representing results gathered from monitoring information items previously observed by a user; and
at least one input option associated with the display to facilitate user queries of the information items.
37. The user interface of claim 36, the queries are launched when filtering objects in the user interface are manipulated or when the user selects return.
38. The user interface of claim 36, further comprising a list view interface.
39. The user interface of claim 36, further comprising a preview showing a portion of a message.
40. The user interface of claim 36, further comprising at least one of a Document Title, a Date, a Rank, an Author, Mail To field, a File Type field, a Mail CC field, a Mail Has Attachment field, a Message Type, a Message Read field, a Path, a Size, and a Title.
41. The user interface of claim 36, the display objects further comprise user selectable filters.

42. The user interface of claim 36, further comprising options for adding custom metadata to items.
43. The user interface of claim 42, further comprising options to supply usage-based metadata that is generated from user events.
44. The user interface of claim 36, further comprising a persistent query that is associated with a local or remote content source, and summary information presented to the user relating to the query.
45. The user interface of claim 36, the display further comprising a timeline visualization of the display objects.
46. The user interface of claim 45, the timeline visualization includes an annotation of at least one of a public event and a personal event to facilitate searching results-related information.
47. The user interface of claim 36, the display further comprising a grid visualization of the display objects.
48. The user interface of claim 47, the grid visualization enables users to explore trends, correlations, and relationships in a large information set.
49. The user interface of claim 47, the grid visualization employs a grid motif to show relationships between attributes of people, topics, and time, wherein users assign one of the attributes to an X axis and another attribute to a Y axis.
50. The user interface of claim 36, further comprising components to present information about items that have been accessed by multiple people in an organization, shared *via* the merging of multiple indices or *via* the indexing of coalesced content.

51. The user interface of claim 50, the components employ privacy mechanisms for restricting the sharing of classes of information or activity, and anonymizing items to remove personal information or associations.

52. The user interface of claim 36, further comprising virtual folders that contain results of predefined, or persistent queries, including queries that have, as part of their definition, temporal or organizational relationships.

53. The user interface of claim 36, further comprising a hierarchy of nested sets of folders of increasing specialization that are invoked to represent the results of queries with increasingly specialization.

54. The user interface of claim 36, further comprising a component to submit a query or an automatically reformulated version of the query to at least one other search engine.

55. The user interface of claim 54, further comprising a component for accessing resources from the Internet, and integrating query results from a personal search engine with results from the other search engine in a displayed result list.

56. The user interface of claim 54, further comprising a component to mark search results coming from outside a personal store, or from a particular store the search results have been retrieved.

57. The user interface of claim 56, further comprising a component to interleave personal results or returned results from another search engine in a separately marked region of a display.

IX. Evidence Appendix (37 C.F.R. §41.37(c)(1)(ix))

None.

X. Related Proceedings Appendix (37 C.F.R. §41.37(c)(1)(x))

None.